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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,406	07/14/2006	Seung-Hak Baik	CLENV-000100	9556
35657 7590 10/02/2008 FAEGRE & BENSON LLP PATENT DOCKETING 2200 WELLS FARGO CENTER 90 SOUTH SEVENTH STREET MINNEAPOLIS, MN 55402-3901				
EXAMINER DOUYON, LORNA M				
ART UNIT 1796		PAPER NUMBER		
MAIL DATE 10/02/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,406

Applicant(s)

BAIK ET AL

Examiner

Lorna M. Douyon

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/20/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Information Disclosure Statement

1. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaeser (US Patent No. 4,294,718).

Kaeser teaches a process for making a base bead product (from which a heavy duty built nonionic synthetic organic detergent composition) which comprises adding some water to the crutcher initially, followed by some inorganic salt, either carbonate or bicarbonate, more water and more salt, and then gel preventative materials and silicate solution, (the temperature of the aqueous medium in the crutcher will usually be elevated, normally to the 40°C to 70°C range), and the crutched slurry is transferred in usual manner to a spray drying tower (see col. 7, lines 15-68; col. 6, lines 61-63). The crutcher slurry contains from 50 to 65% of solids, with the balance water, and of the solids content, 55 to 80% is sodium bicarbonate, 10 to 25% is sodium carbonate and 10 to 25% is sodium silicate (see col. 4, lines 20-28). The silicate employed will preferably be of $\text{Na}_2\text{O}:\text{SiO}_2$ ratio within the range of 1:1.6 to 1:2.6 (see col. 4, lines 40-53). The product should inherently yield sodium sesquicarbonate and layered silicate because same process steps and ingredients have been utilized. Hence, Kaeser anticipates the claims.

4. Claims 1-3, 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Burke, Jr. (US Patent No. 3,996,079).

Burke, Jr. teaches a process for preparing a detergent adjuvant combination which comprises: a. forming an aqueous solution of water soluble alkali metal silicate, b. adding to said solution sufficient reactant selected from the class consisting of carbon dioxide and alkali metal bicarbonate to form thereof a solution of electrolyte selected from the alkali metal carbonates and bicarbonates and having a precipitate of alkaline silica pigment (containing bound alkali) therein, and c. recovering said alkaline silica pigment and at least 25% dry basis, by weight, of the electrolyte resulting from step (b), in combination, as a detergent adjuvant combination (see col. 1, lines 46-60). One product of the reaction is sesquicarbonate (see col. 4, lines 58-63). In Example 4, Burke, Jr. teaches diluting a solution of sodium silicate ($\text{Na}_2\text{O}(\text{SiO}_2)_{3.22}$), adding sodium carbonate dissolved in 8 liters of water at 60°C, and the combination is placed in a ceramic vessel, adding sodium bicarbonate solution (as the acidulation agent), then drying the solution (see col. 13, lines 11-46). The acidulation may be carried out at temperatures between the freezing point and boiling point of water, i.e. from about 5° to about 100°C at atmospheric pressure, or up to 200°C or more if conducted under higher pressure (see col. 3, line 66 to col. 4, line 8). The product should inherently yield sodium sesquicarbonate and layered silicate because same process steps and ingredients have been utilized. Hence, Burke, Jr. anticipates the claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaeser as applied to the above claims.

Kaeser teaches the features as described above. Kaeser, however, fails to specifically disclose the heating step at the recited temperature.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the reaction temperature of Kaeser because reaction parameters are recognized to have been result-effective variables. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of

obviousness. See *In re Boesch*, 61 7 F.2d 272, 276,205 USPQ215, 219 (CCPA 1980). See also *In re Woodruff* 919 F.2d 1575,1578, 16 USPQ2d 1934, 1936-37 Fed. Cir. 1990), and *in re Aller*, 220 F.2d 454,456, 105 USPQ 233,235 (CCPA 1955).

8. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke, Jr. as applied to the above claims.

Burke, Jr. teaches the features as described above. Burke, Jr., however, fails to specifically disclose the proportion of water in the slurry in amounts as those recited.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the water in the slurry of Burke, Jr. through routine experimentation for best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 61 7 F.2d 272, 276,205 USPQ215, 219 (CCPA 1980). See also *In re Woodruff* 919 F.2d 1575,1578, 16 USPQ2d 1934, 1936-37 Fed. Cir. 1990), and *in re Aller*, 220 F.2d 454,456, 105 USPQ 233,235 (CCPA 1955).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered cumulative to or less material than those discussed above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is 571-272-1313. The examiner can normally be reached on Mondays-Fridays 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

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